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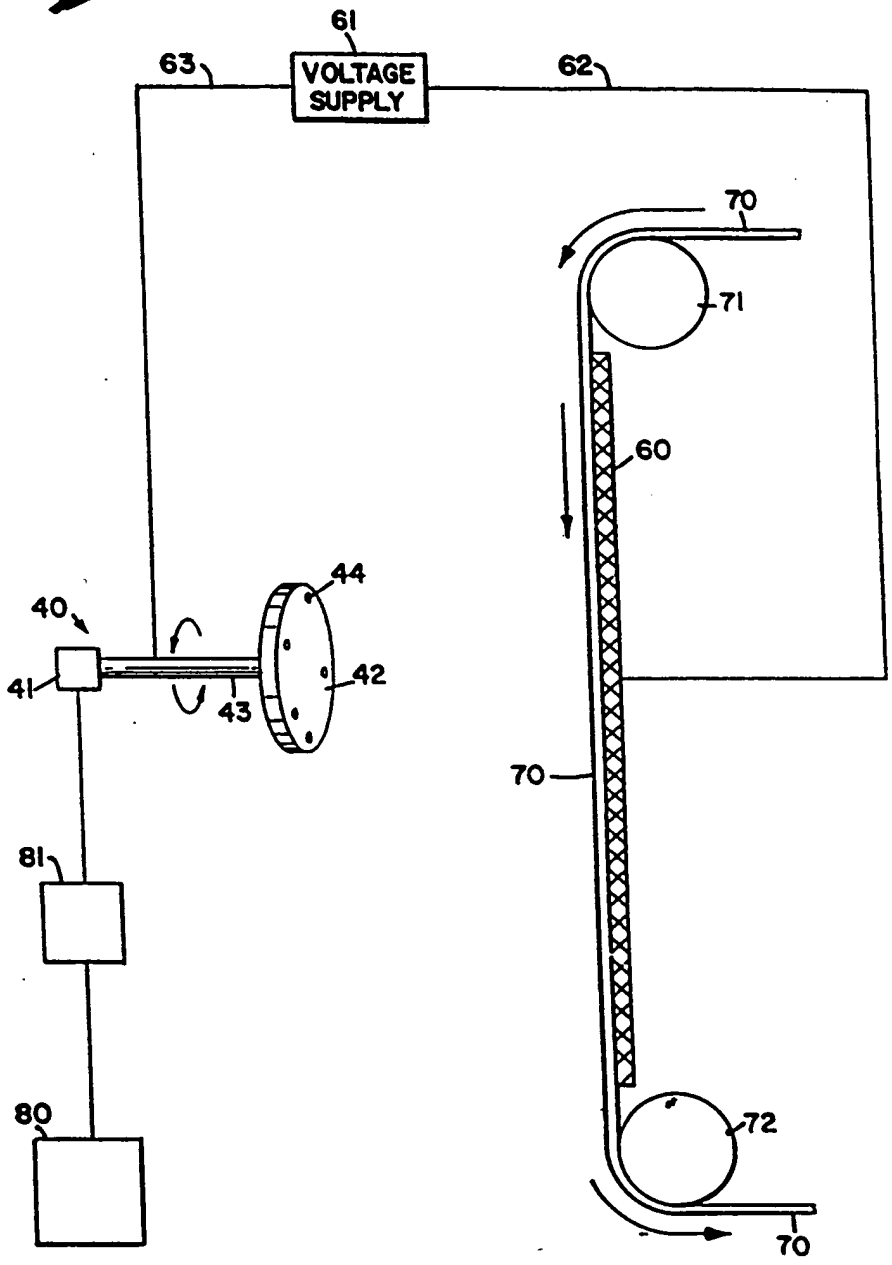
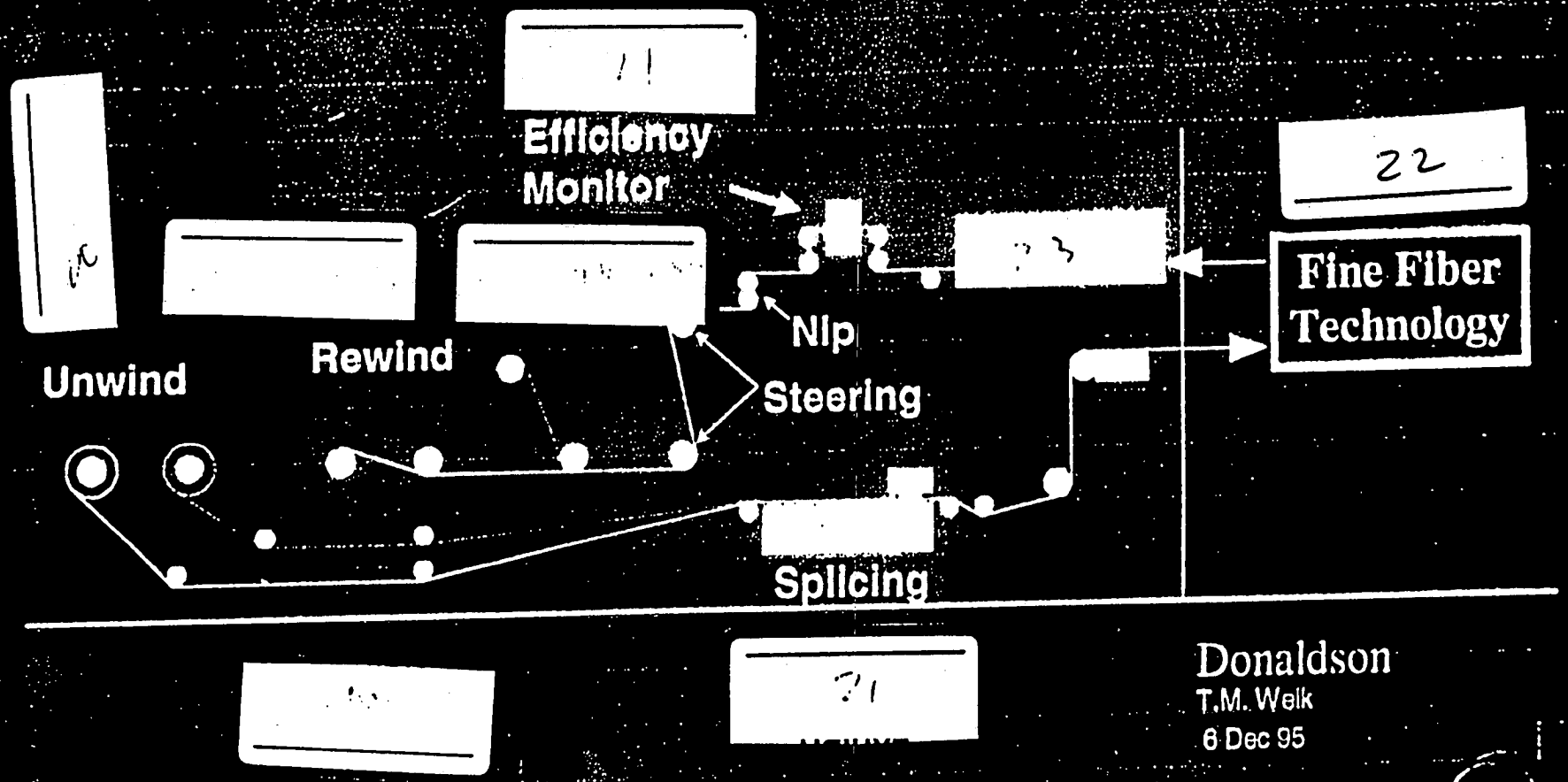
FIG. 1



Fine Fiber Technology

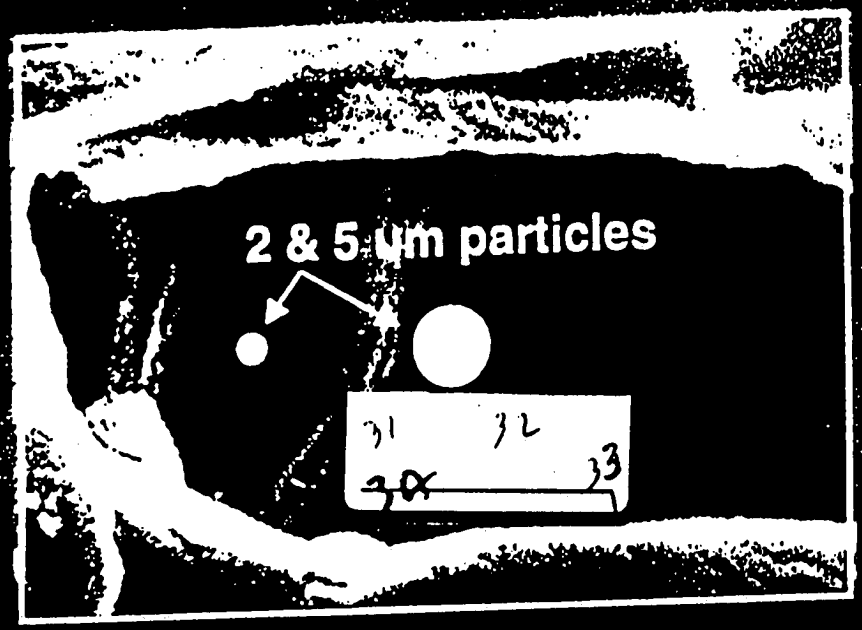


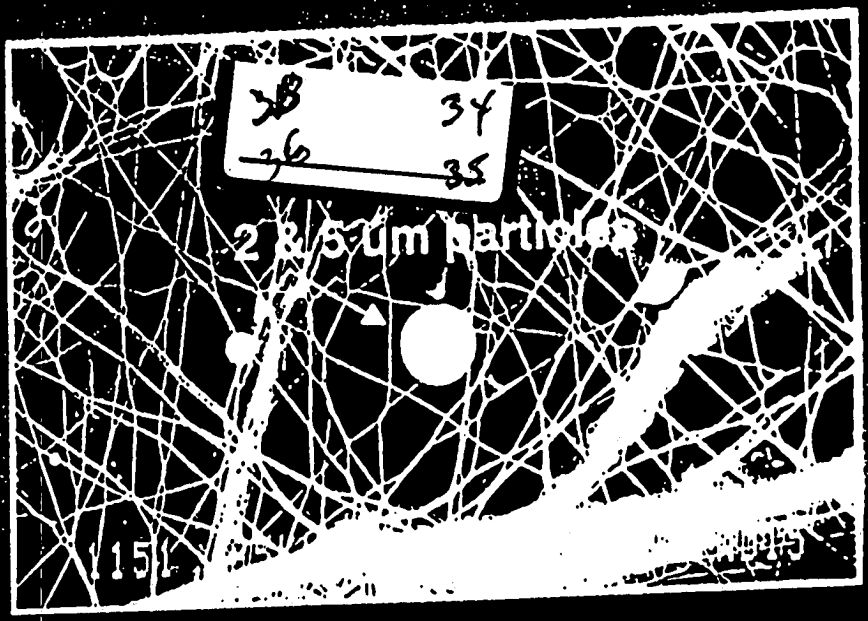
Donaldson
T.M. Welk
6 Dec 95

EL 2

Cellulose Media

Ultra-Web®





2,000 X Scanning Electron Microscope Images

Katz Analytical Services, Inc.
1191-20C-3, Sample #: 1, Angle: 65

[redacted]

XPS Multiplex
O 1s
EV/Step: 0.2 eV, Time/Step: 50 mSec, Sweeps: 12
Source: Al, Pass Energy: 71.55 eV, Work Function: 4.1 eV

6A

Fig 4. ESCA O 1s Spectra for Samp[redacted] As Spun

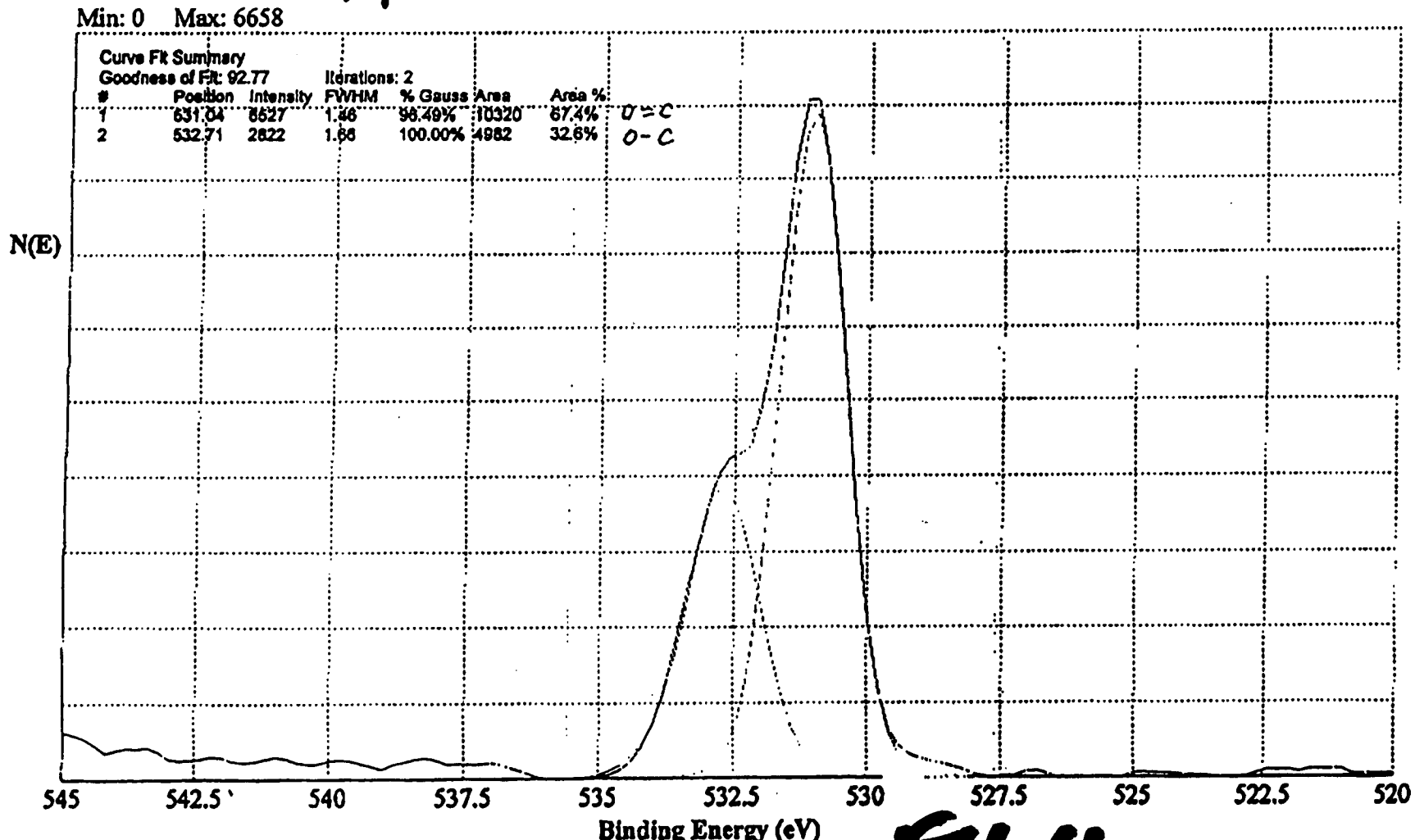


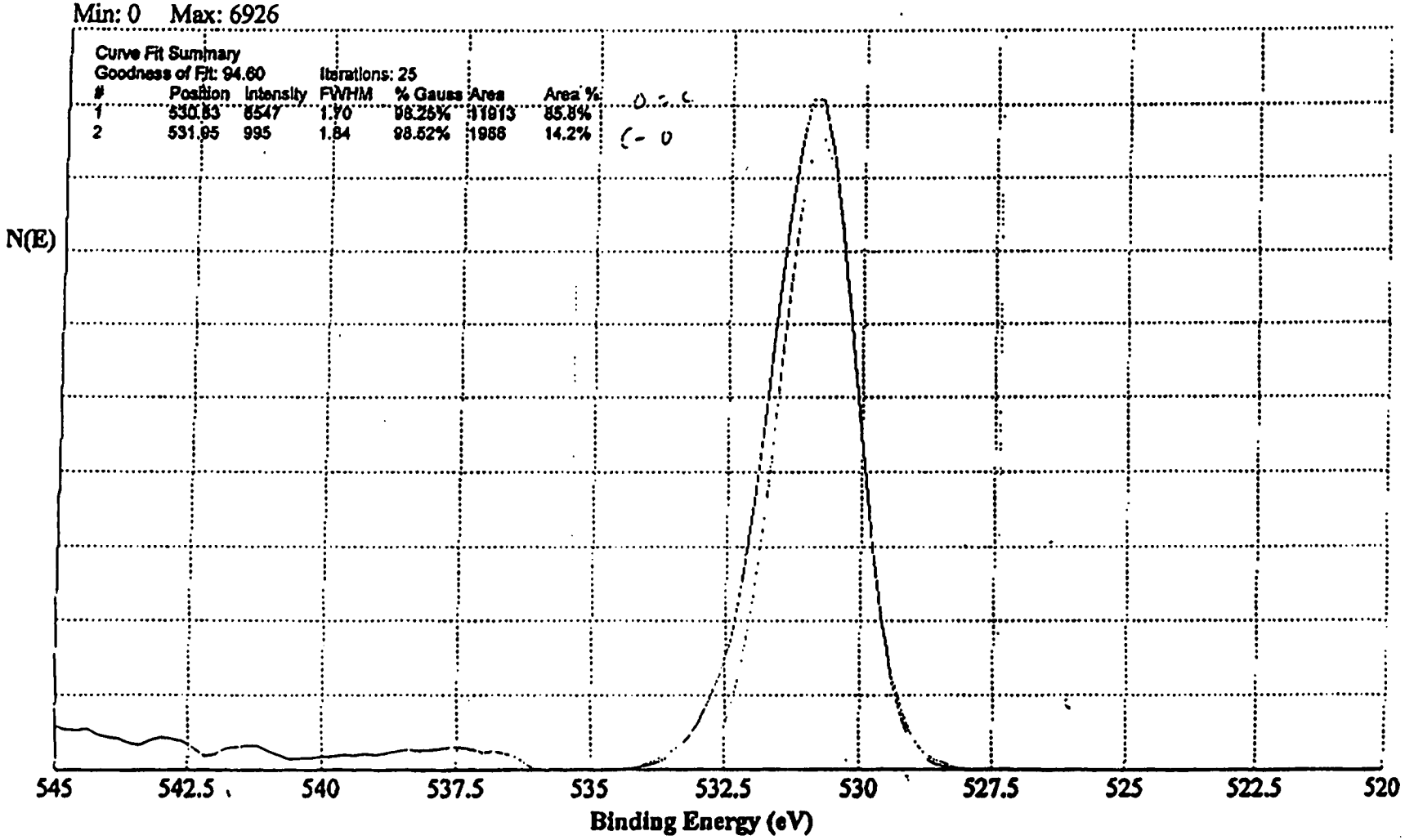
FIG 4

Katz Analytical Services, Inc.
1191-20C-4, Sample #: 1, Angle: 65

[redacted]

XPS Multiplex
O 1s
EV/Step: 0.2 eV, Time/Step: 50 mSec, Sweeps: 12
Source: Al, Pass Energy: 71.55 eV, Work Function: 4.1 eV

Fig 5. ESCA O 1s Spectra for Heat-Treated Sample [redacted] 6A

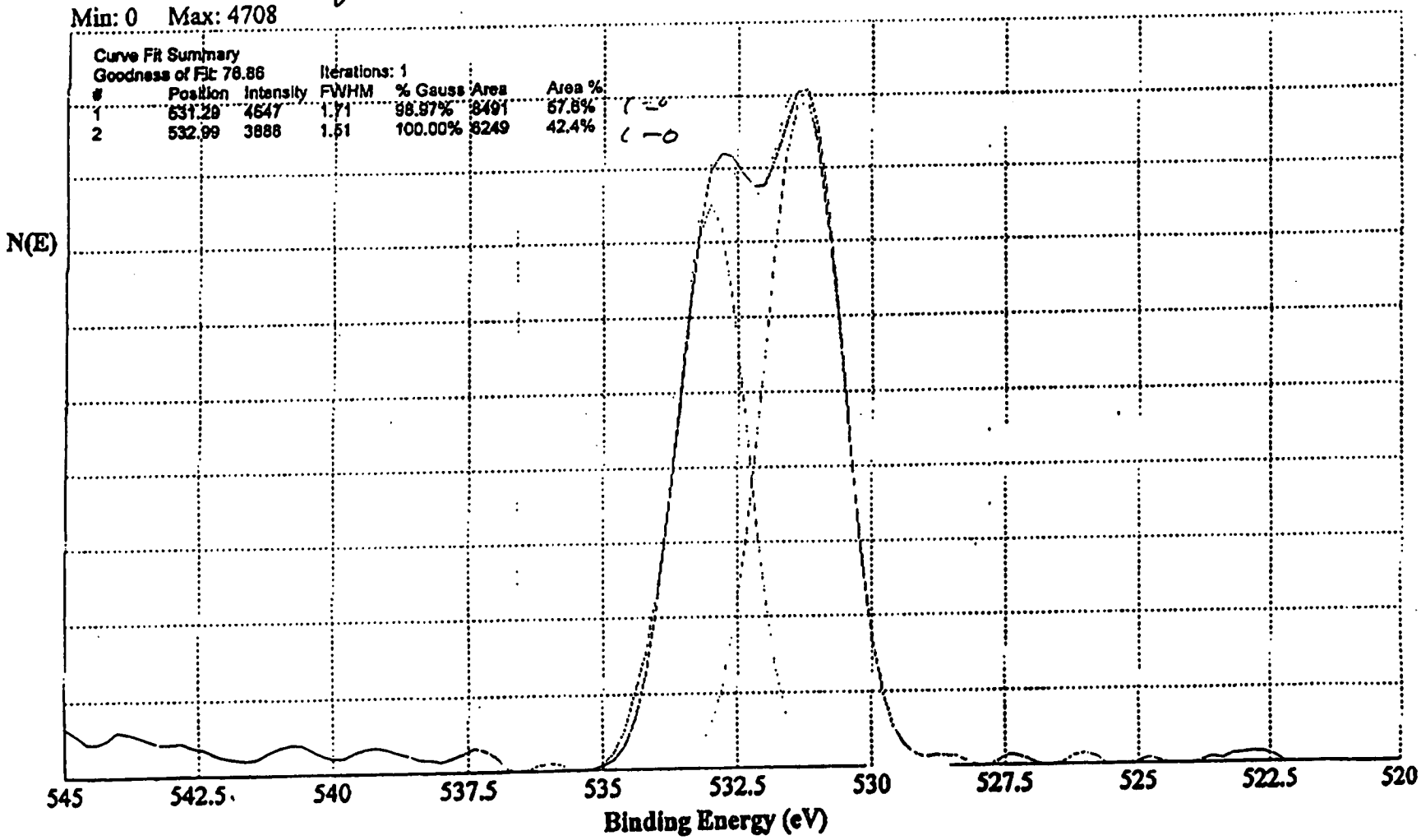


[redacted]

Katz Analytical Services, Inc.
1191-20C-5, Sample #: 1, Angle: 65

XPS Multiplex
O 1s
EV/Step: 0.2 eV, Time/Step: 50 mSec, Sweeps: 12
Source: Al, Pass Energy: 71.55 eV, Work Function: 4.1 eV

Fig 6B, ESCA 01s Spectra for As Span Example [redacted]

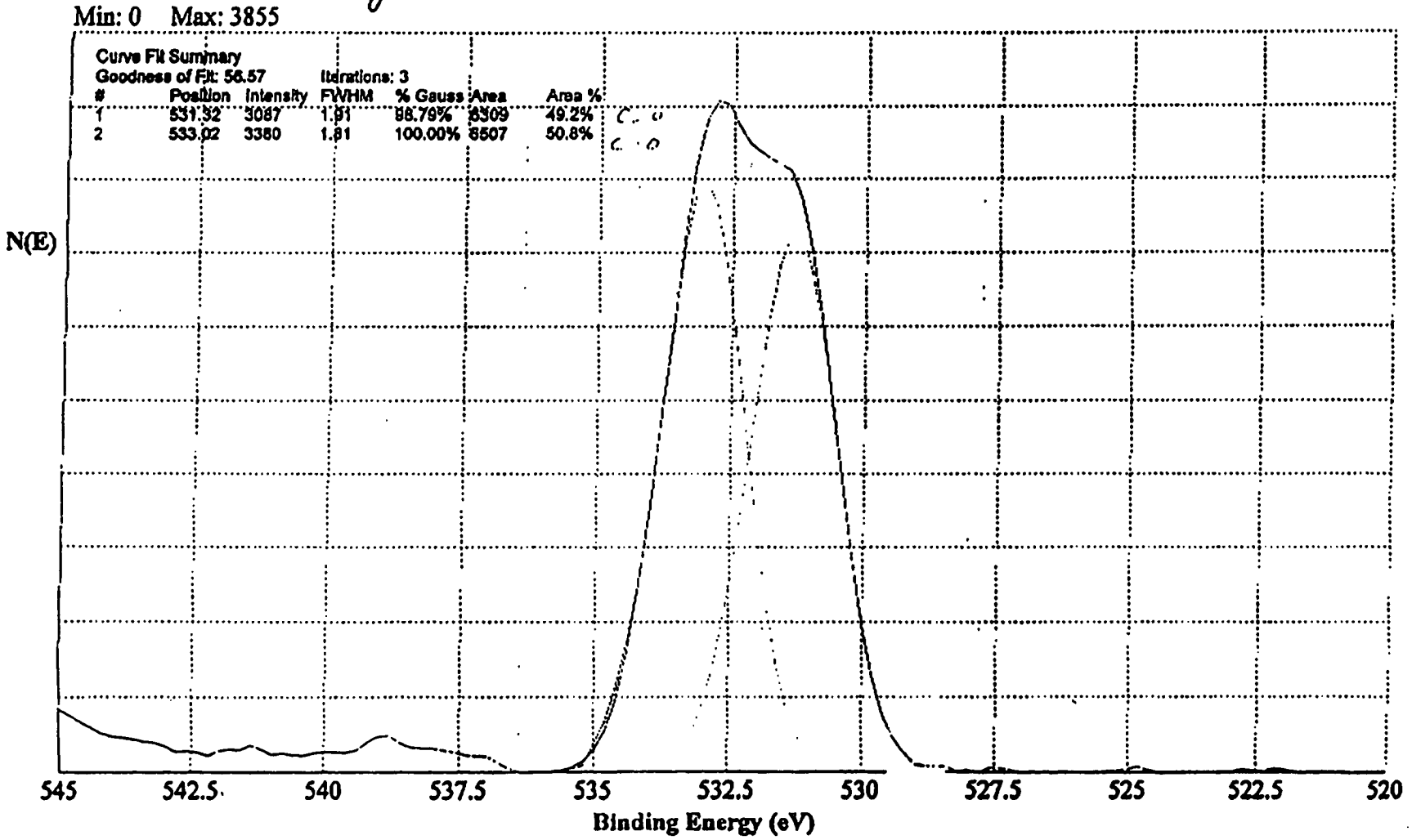


Katz Analytical Services, Inc.
1191-20C-6, Sample #: 1, Angle: 65

[redacted]

XPS Multiplex
O 1s
EV/Step: 0.2 eV, Time/Step: 50 mSec, Sweeps: 16
Source: Al, Pass Energy: 71.55 eV, Work Function: 4.1 eV

Fig 6B ESCA O1s Spectra for Heat-Treated Example [redacted]

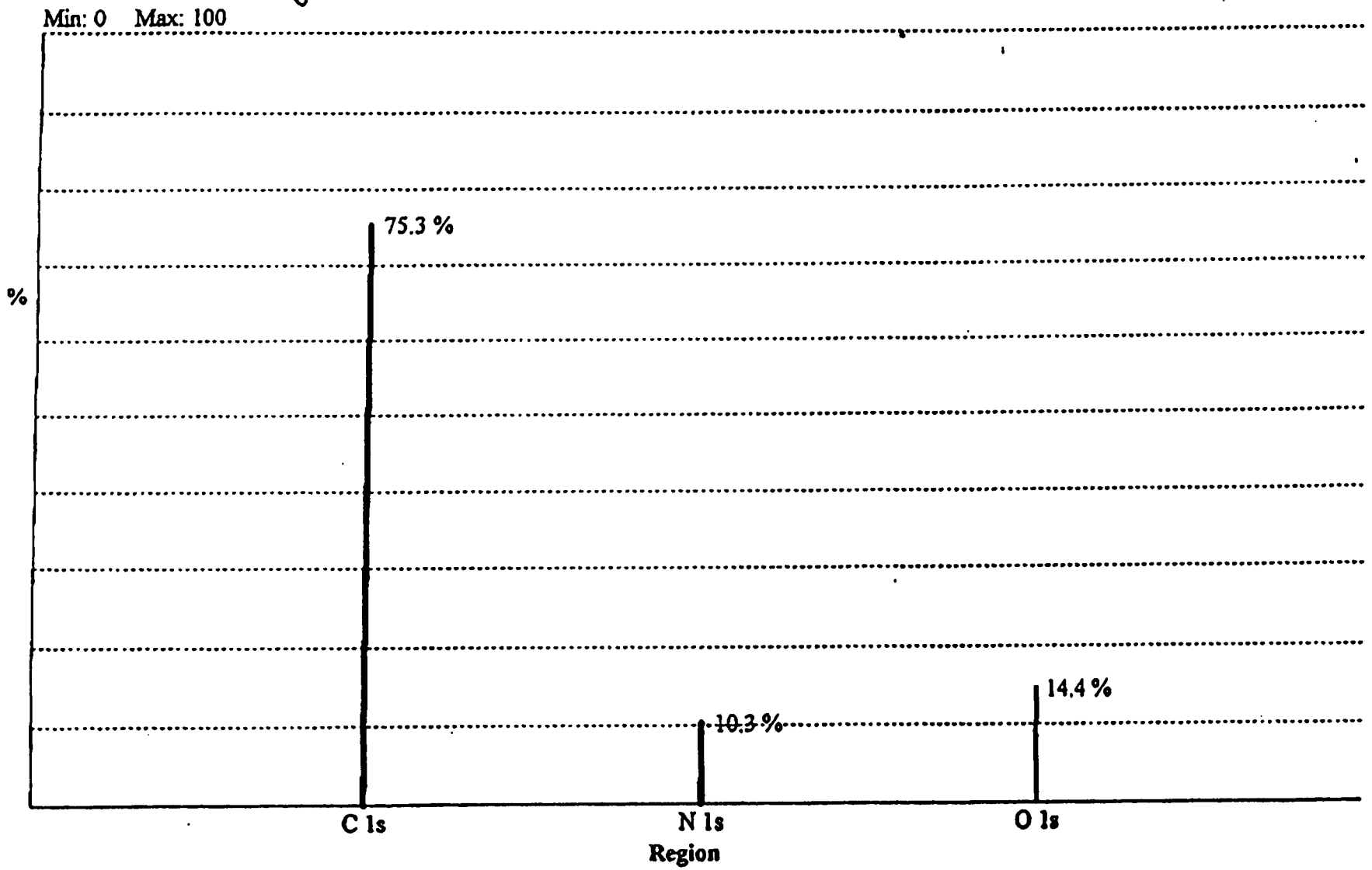


Katz Analytical Services, Inc.
1191-20C-3, Sample #: 1, Angle: 65

[redacted]

XPS Multiplex
Source: Al, Pass Energy: 71.55 eV, Work Function: 4.1 eV

Fig 8. ESCA Multiplex for As-Spun Sample [redacted]6A

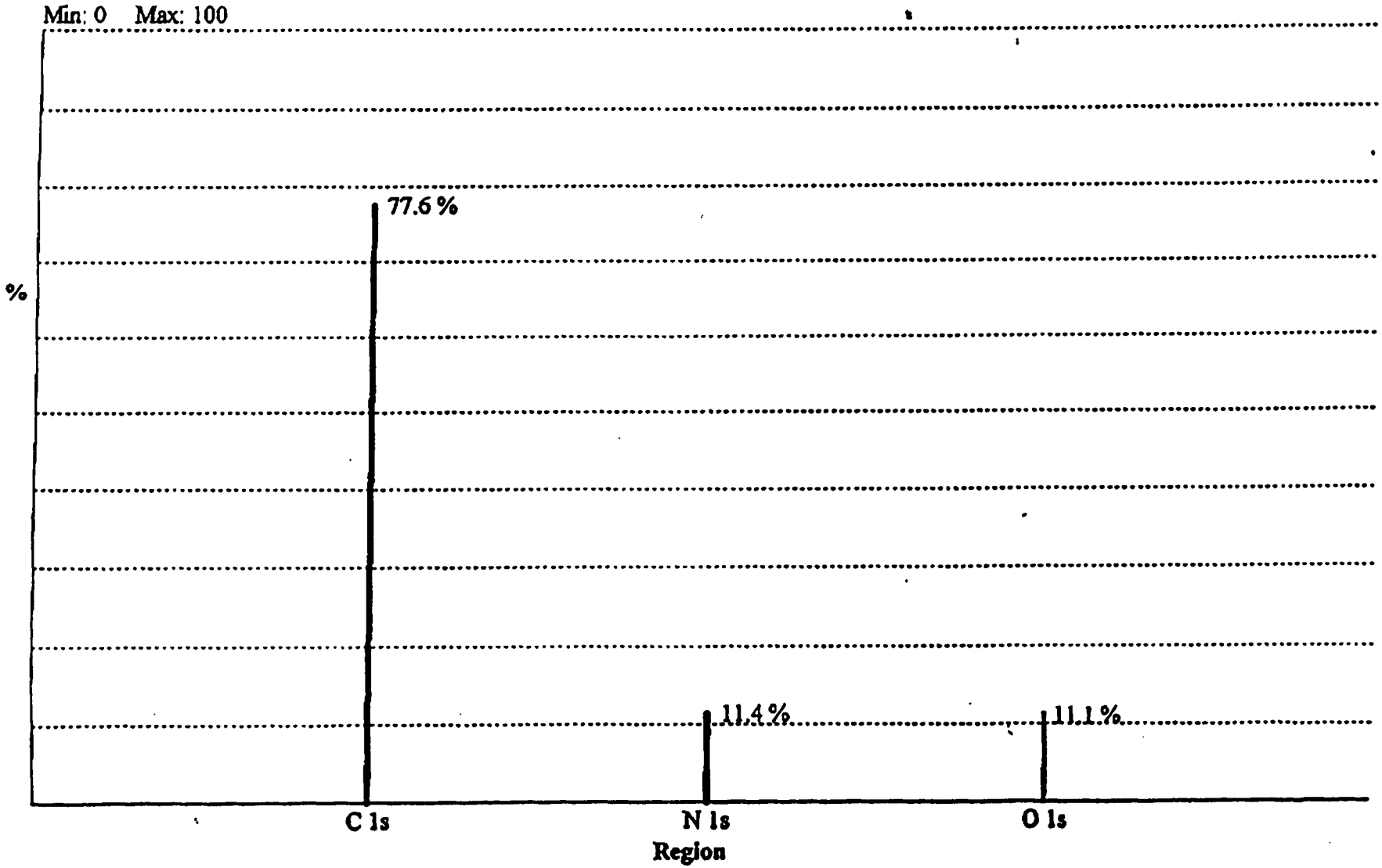


Katz Analytical Services, Inc.
1191-20C-4, Sample #: 1, Angle: 65

[redacted]

XPS Multiplex
Source: Al, Pass Energy: 71.55 eV, Work Function: 4.1 eV

Fig 9. ESCA Multiplex for Heat Treated Sample [redacted] 6A

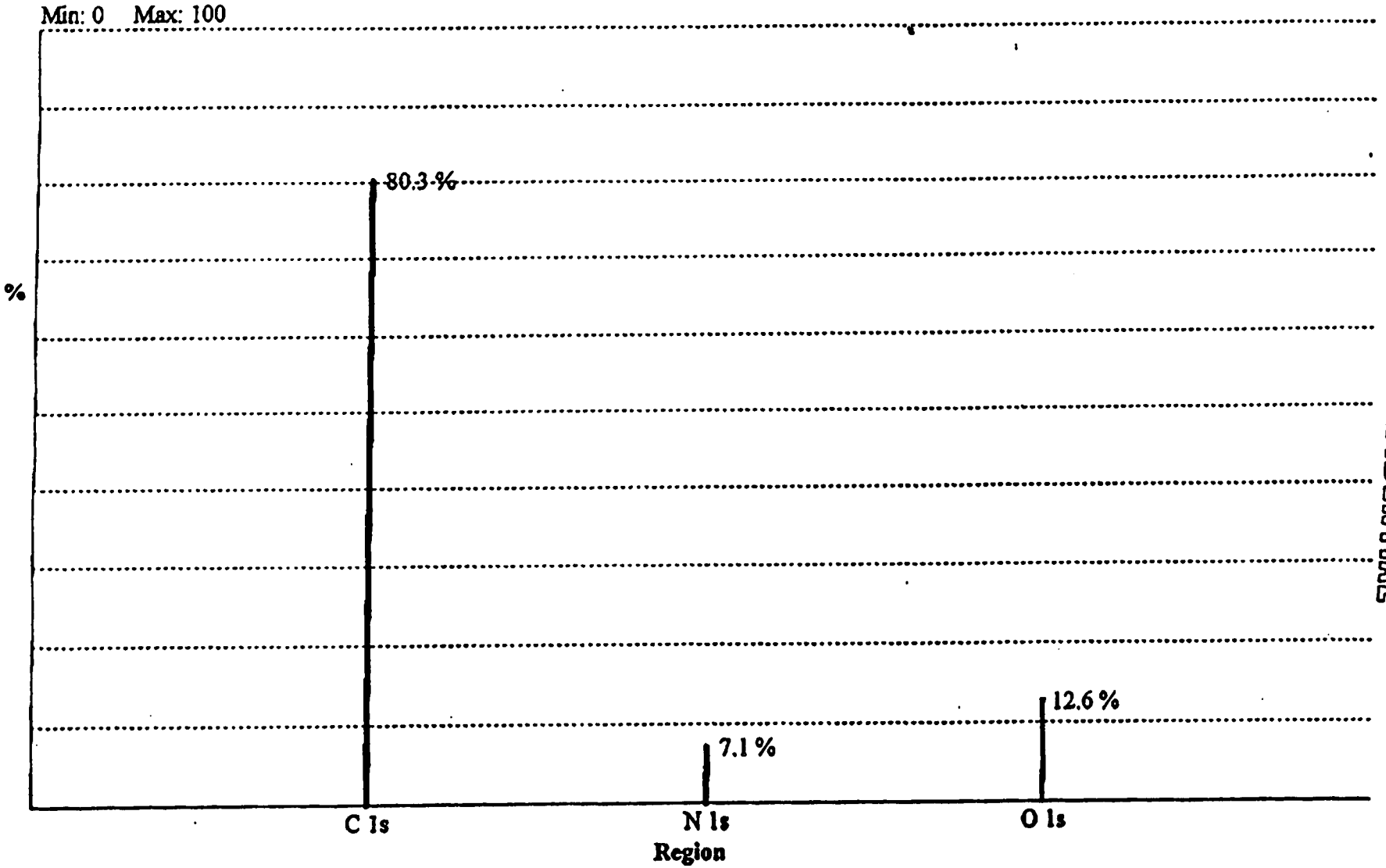


[redacted]

Katz Analytical Services, Inc.
1191-20C-5, Sample #: 1, Angle: 65

XPS Multiplex
Source: Al, Pass Energy: 71.55 eV, Work Function: 4.1 eV

Fig 10 ESCA Multiplex for As-Spun Sample [redacted]6B

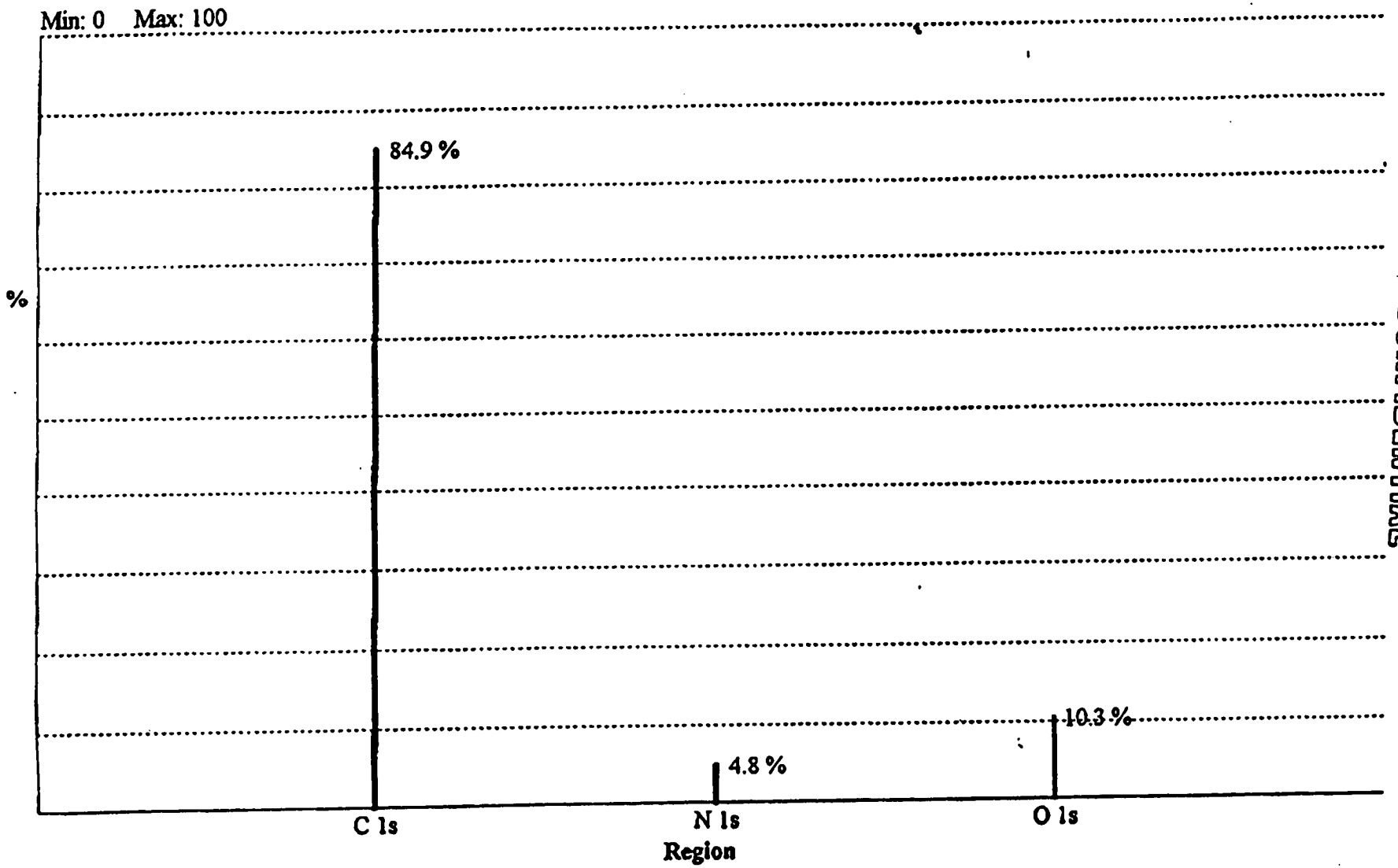


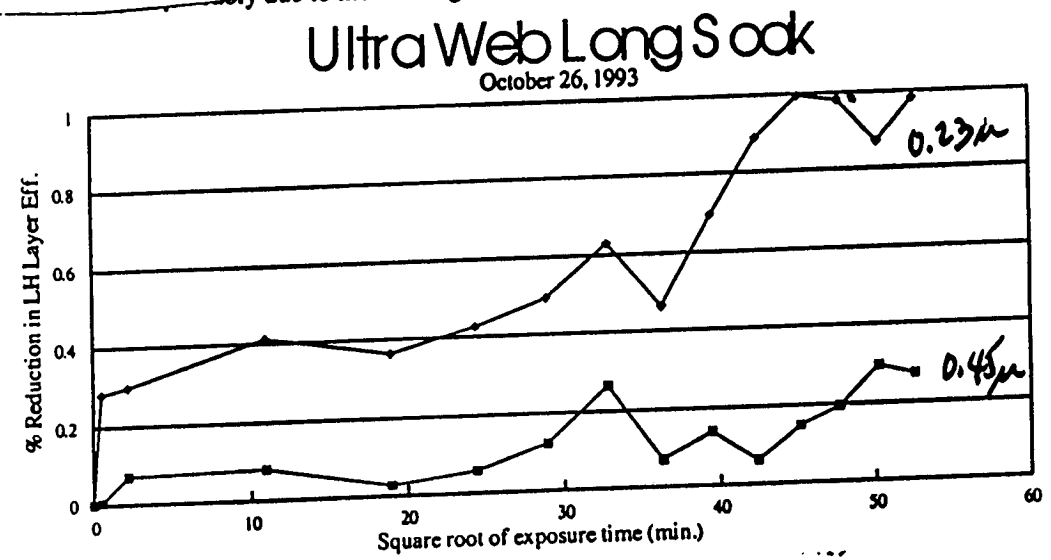
[redacted]

Katz Analytical Services, Inc.
1191-20C-6, Sample #: 1, Angle: 65

XPS Multiplex
Source: Al, Pass Energy: 71.55 eV, Work Function: 4.1 eV

Fig [redacted] ESCA Multiplex for Heat-Treated Sample [redacted] 6B





Hot
work
sock
in
Test
methods

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FIG 12

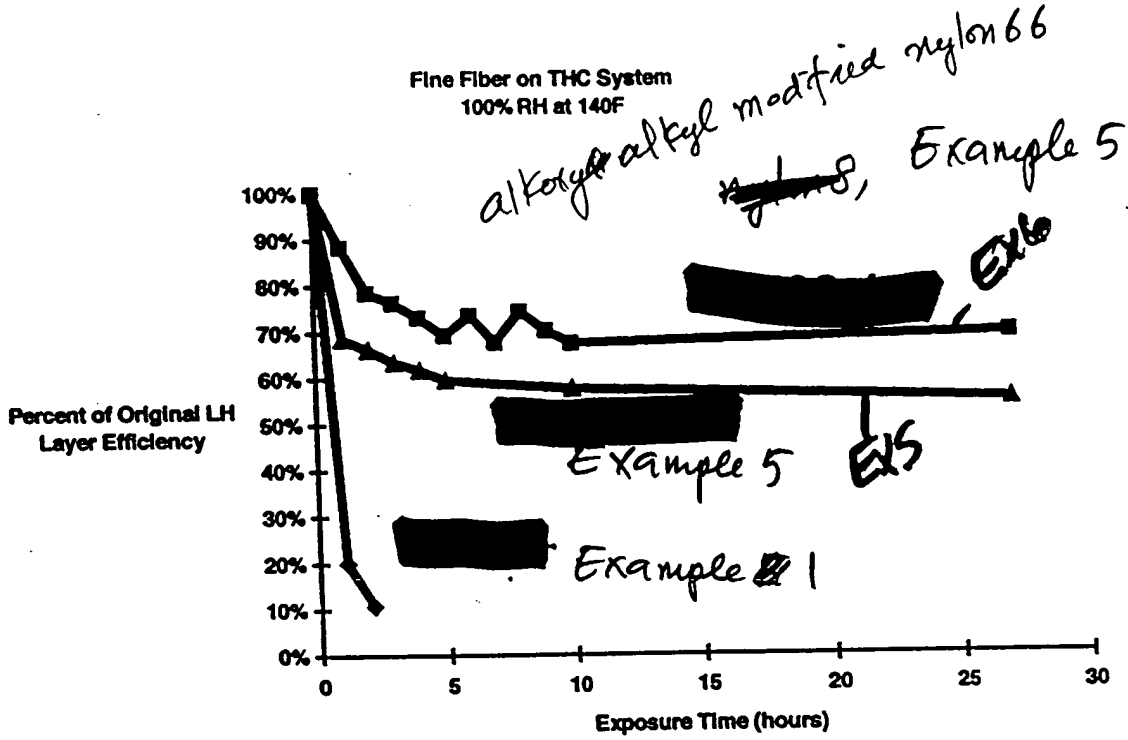
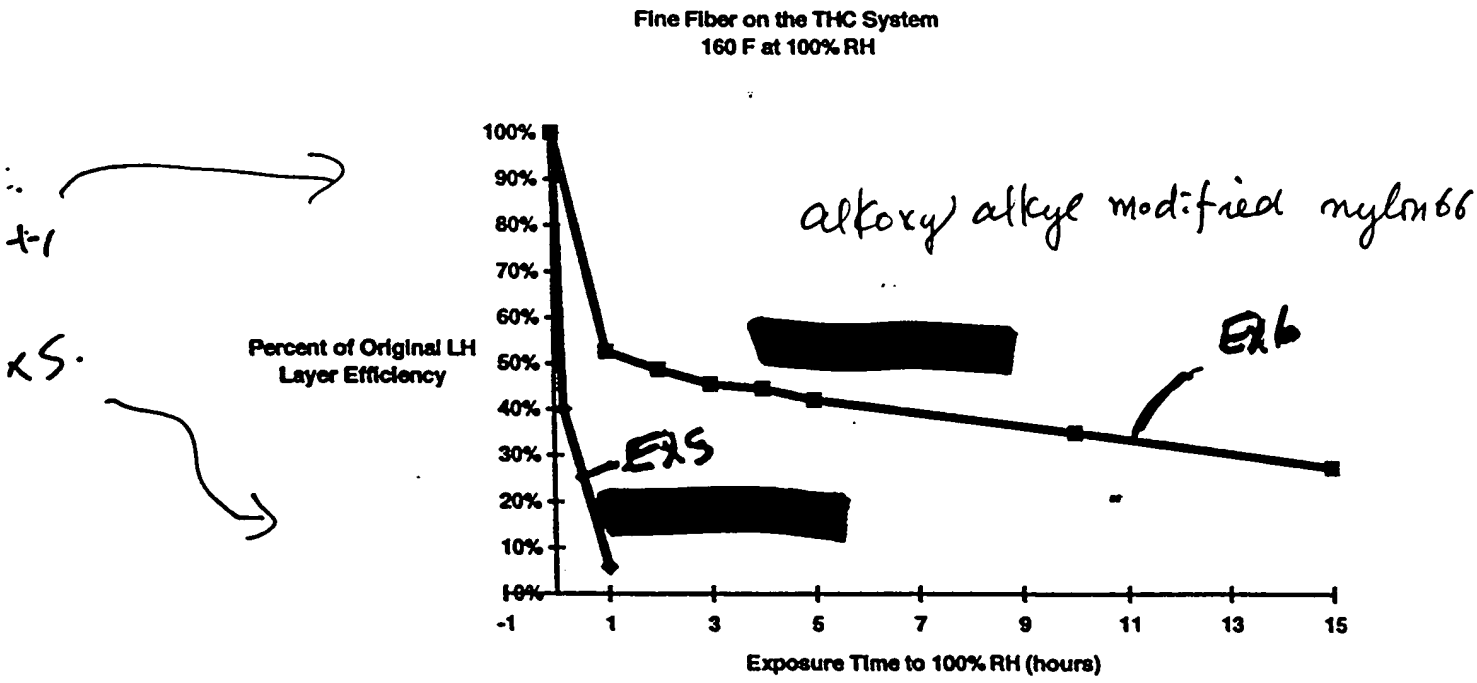


Fig. 13

Fig 14



alkoxy alkyl modified nylon 66

F1615

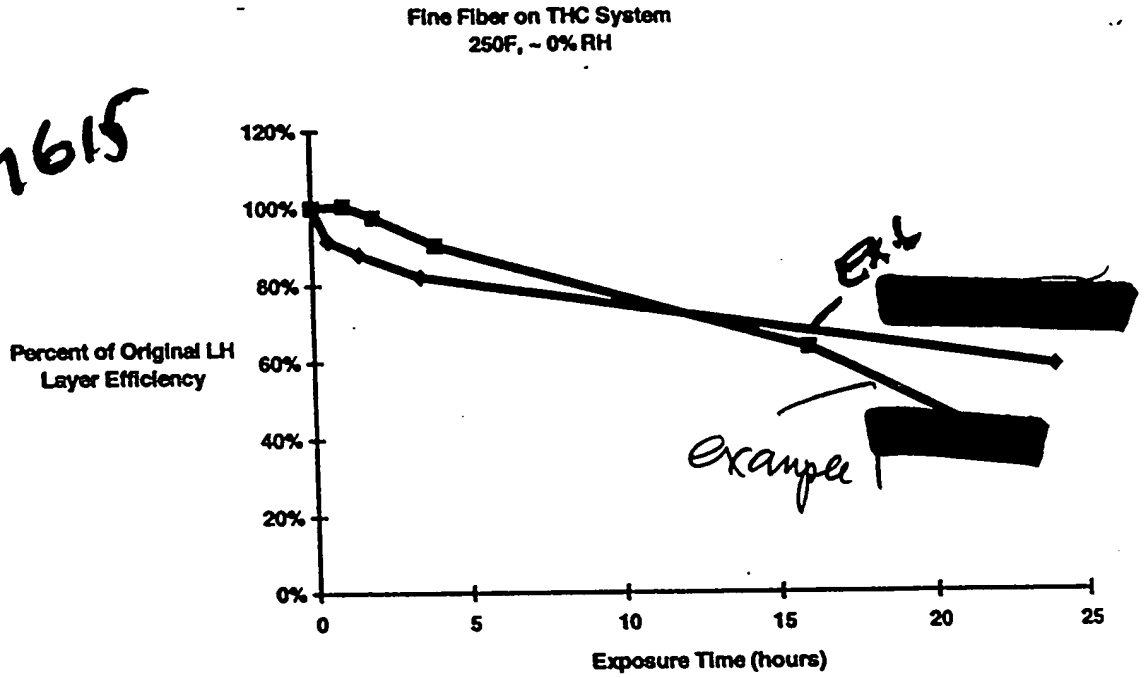
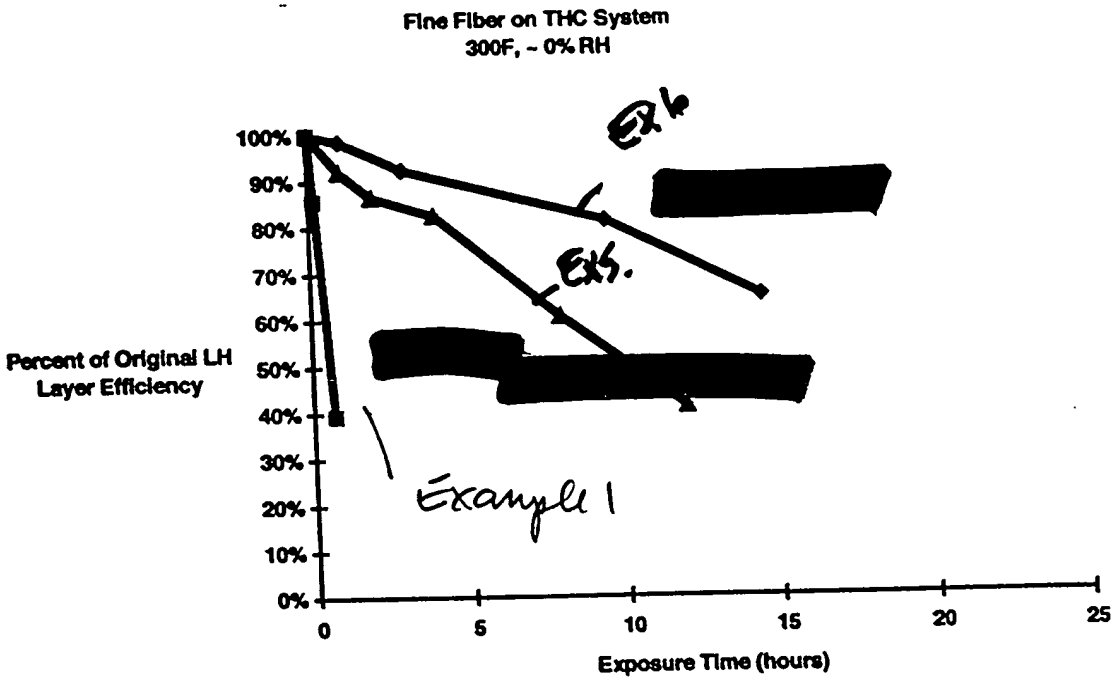

Fine Fiber on THC System
250F, ~ 0% RH
Percent of Original LH Layer Efficiency
120%
100%
80%
60%
40%
20%
0%
0
5
10
15
20
25
Exposure Time (hours)
Ex 1
Example

Fig 16

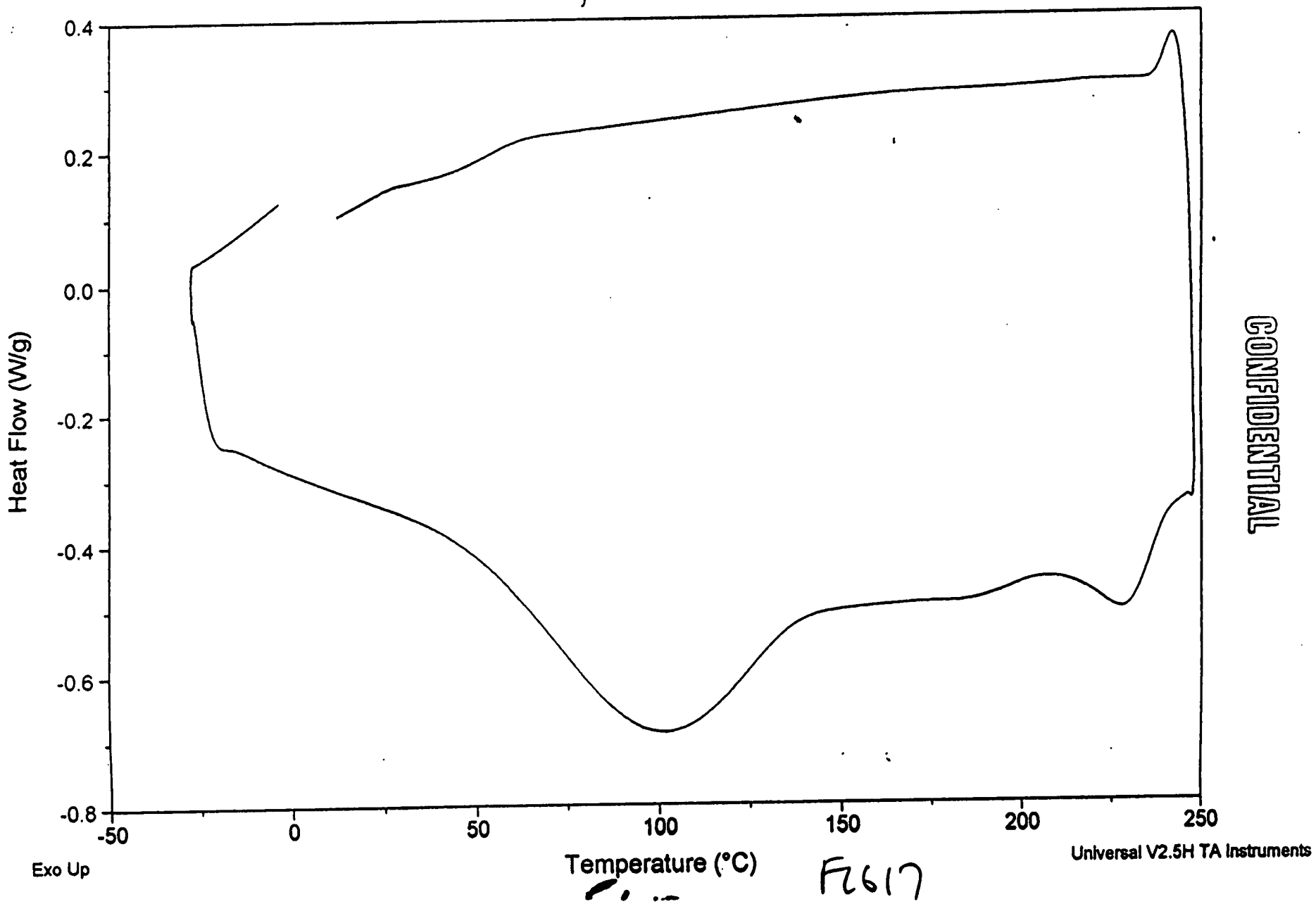


1st Melt

DSC nylon [redacted]

Sample: 1191-19C-6
Size: 9.1500 mg
Method: Polymer Samples
Comment: Material characterization

100% modified [redacted] 66



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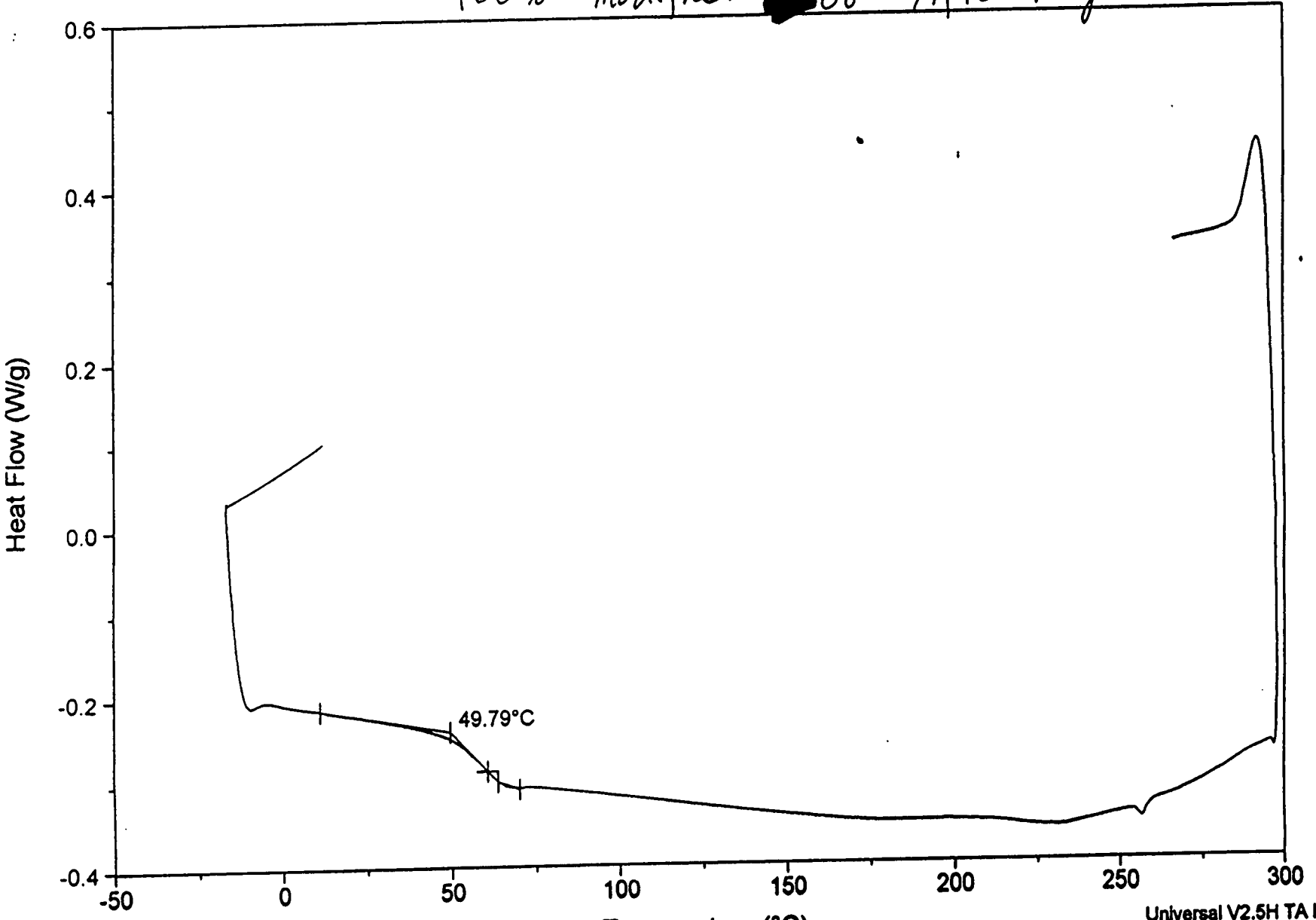
F2617

Sample: 1191-19C-6
Size: 9.1500 mg
Method: Polymer Samples
Comment: Material characterization

2nd Melt
DSC
[redacted]
100% modified nylon [redacted]66 - After Fully Cross-linked



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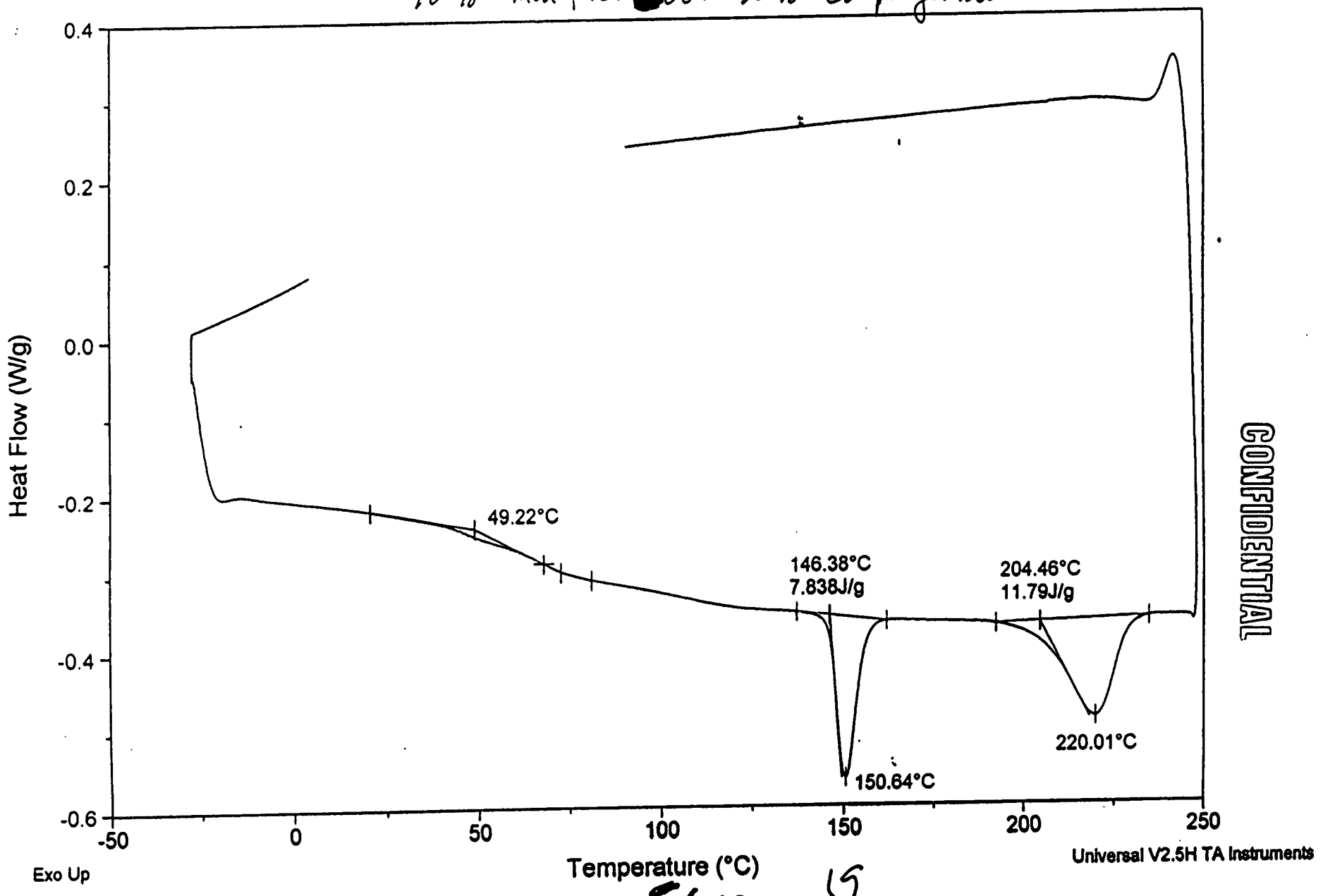
FL618

Sample: 1191-19C-7
Size: 9.8400 mg
Method: Polymer Samples
Comment: Material characterization

1st Melt
DSC
nylon

Example 6
70% modified [redacted]66: 30% co-polyamide



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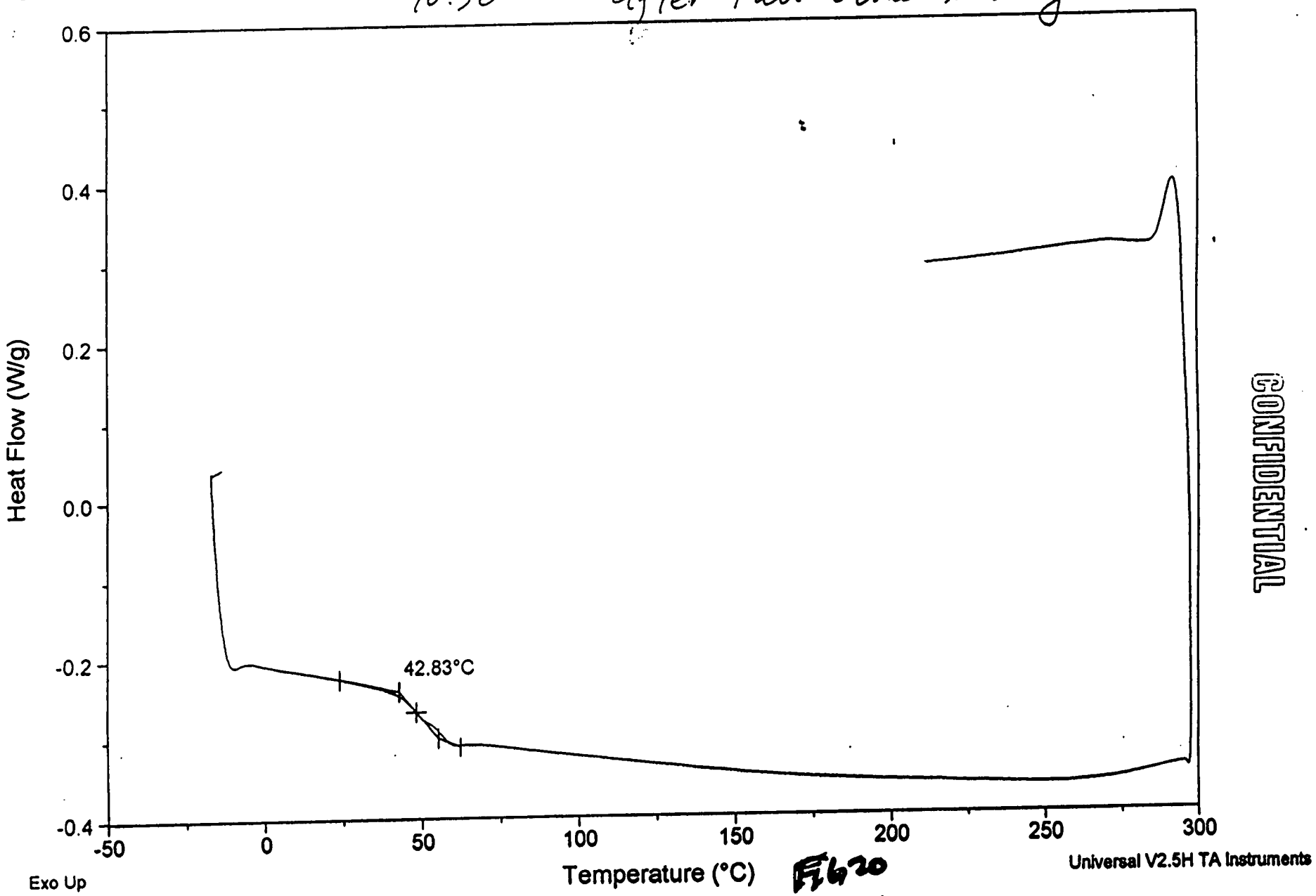
19

Sample: 1191-19C-7
Size: 9.8400 mg
Method: Polymer Samples
Comment: Material characterization

Example 6 2nd Melt DSC [redacted]

70:30 after Full Cross linking



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F620